

SATELLITES:**Intelsat 10-02:**

The Intelsat-10 02 is the largest and most powerful satellites ever procured by Intelsat, the international telecommunications satellite operator, to provide various communications services including fixed telephone and data services, broadcast and news gathering. The IS-10-12 is a premium landmass orbital role that will provide coverage for Europe, Africa and Middle East. Intelsat 10-02, is located at 359 degrees East, Uniquely, the IS-10-12 satellite has 3 steer able Ku-Band spot beams, 2 of which are rotatable, allowing the coverage of any visible area from 359 degree East, while providing better coverage of the target geographic market. IS-10-02's 150W TWTA's ensure the highest power available in the market today. Equipped with Automatic Level Control (ALC) feature enabling the satellite to maintain constant satellite "EIRP" even in case of uplink signal degradation.

INTEL SAT 901:

The satellite, to be positioned at 18°W, will be operated by the International Telecommunications Satellite Organization (INTELSAT), to relay communications and television transmissions to North and South America, Europe, Africa and the Middle East. This was the first spacecraft of seven Intelsat 9-series satellites ordered from Space Systems/Loral by Intelsat. Intelsat 901 was ordered in December 1996. Intelsat 901 will become operational in October, taking over for the Intelsat 705 satellite which will be repositioned to 53°W.

ARABSAT's BADR-4:

has been injected into transfer orbit by ILS. Astrium has worked tirelessly to ensure that this latest significant step in the development of ARABSAT's business is a resounding success.

The successful launch of BADR-4 represents the realization of a critical milestone in ARABSAT's new strategic development, as well as the company's steadfast commitment to consolidating its historical position as the leading operator of DirectTo-Home services in the Middle East and North Africa region since 30 years."

BADR-4 is now the most state-of-the-art satellite to serve the MENA region, providing the 130 million viewers already watching our 26 degrees East video 'hot spot' with an unrivalled level of in-orbit reliability and back-up, as well as unprecedented reach serving all of the 324 million inhabitants now fully covered from Morocco and Algeria to the Arabian Gulf with the highest power ever.

TELEPORTS:

Located in Athens our facilities provide fully managed and maintained RF stations and IP networking with clear channel fiber access to the local telehouse providing Global Internet Exchange Access. These facilities are equipped with state-of-the-art RF and base band electronics that provide the most modern form of communication delivery mechanisms for almost any application.

INTERNET:

A global fiber ring with capacity from the world's top Internet backhaul providers via the US Internet backbone.

MANAGEMENT:

The entire network is managed from a single source with help desk assistance in English and Arabic. End-to-end network management is applied from the Internet backbone through and including the end user ISP.



INTERNET SERVICE DESCRIPTION

OVERVIEW Full end-to-end services are offered, the network, support, configuration and management. In addition to providing High-Power Satellite Services, **X SAT** compliments this with fully managed IP Internet service access to the customer router through three sources to provide global Internet access. All these services including 24X7 network support are included.

1. Network Components – X SAT will provide all the elements from the Internet through the customer's router. This includes but is not limited to redundant mega routers, Internet switching network, redundant shared routers at teleport, layer 4 switch, customer dedicated router (teleport), customer modems (teleport), fully redundant RF uplink/downlink chain, customer VSAT (optional). The customer provides his router standard in operating their ISP business.

2. Network Management – X SAT will manage and maintain all elements between (and including) the Internet and including the customer modem, RFT, customer VSAT (optional) to modem, and monitor performance and networking of customer router.

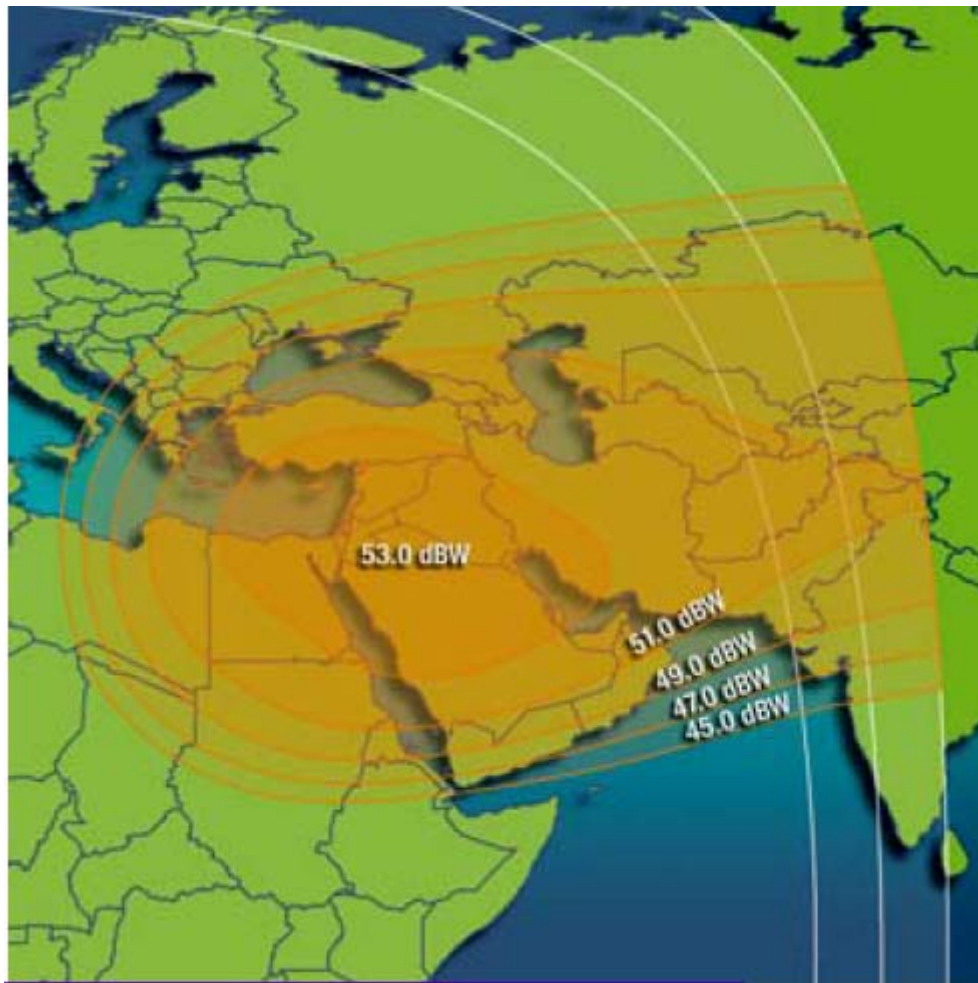
3. Internet Access – X SAT offers a fully redundant Internet fiber network from the teleport facilities to telehouse with dedicated access to the Global Internet Ring of the highest quality access service providers and peering partners.

4. Hub Based IP Managed Services – Full BGP managed IP service at the teleport facilities with dedicated on-site support.

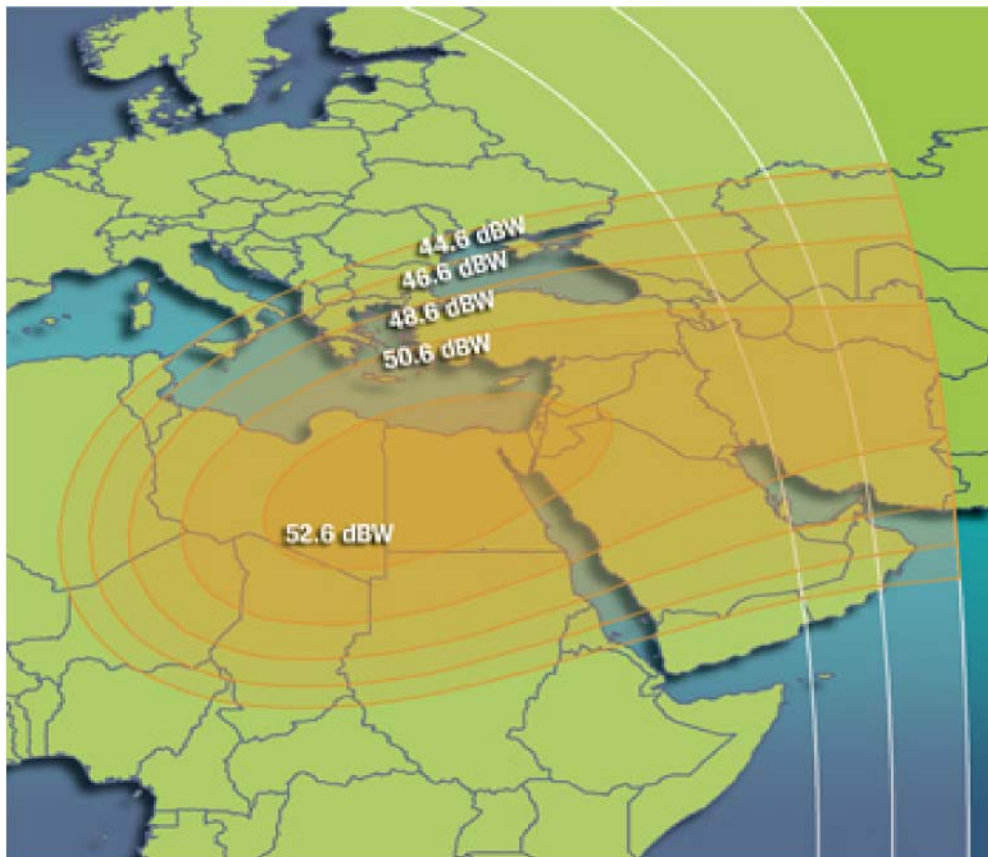
5. End-to-End Managed IP Service – In addition to Hub Based IP Managed Services we provide complete end-to-end IP management (customer router through to the Internet including satellite management). This service manages the remote customer router at BGP level.

SERVICES

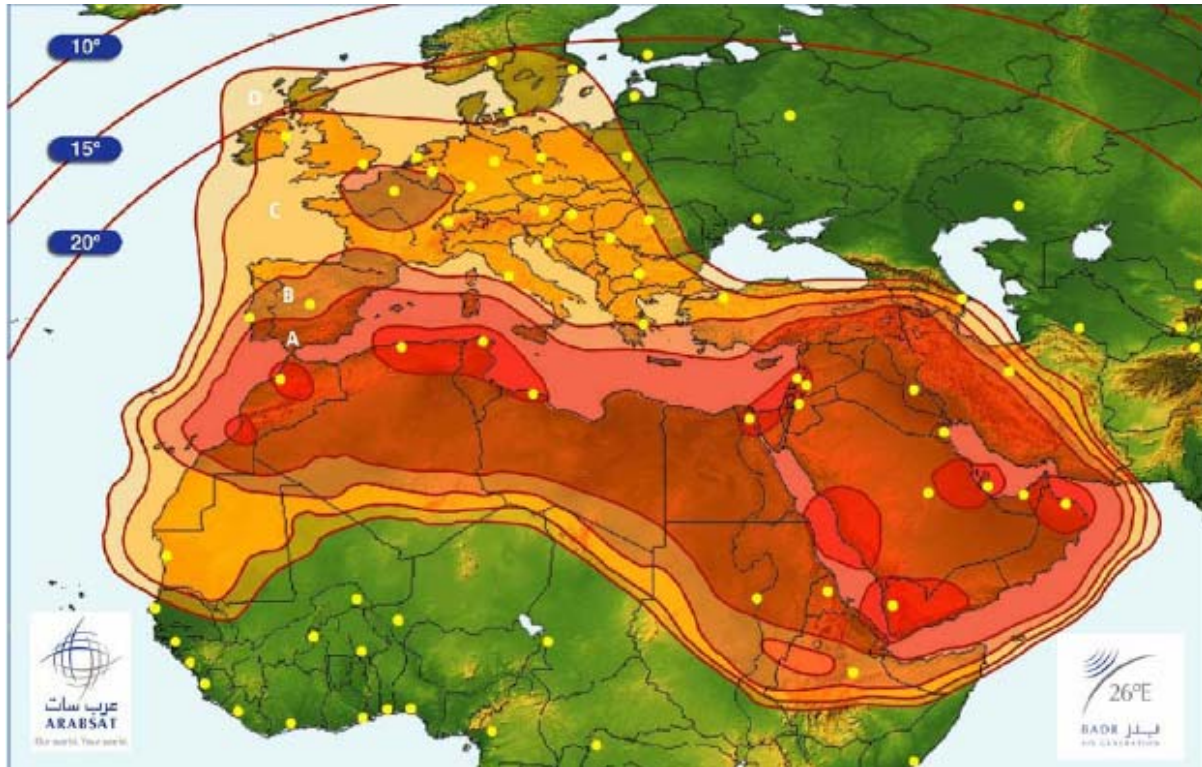
- Internet Access services
- SCPC DVB services
- SCPC/SCPC services
- Point to Point services
- Point to Multi Point Services
- VSAT – VPN
- VoIP services



Manufacturer:	Atrium
Orbital Location:	359 E
Launch Date	16 / 06 / 2004
Key Parameters Total Transponders (Ku-Band)	Up to 36 (in equiv. 36 MHz units)
Polarization (Ku-Band):	Linear – Horizontal or Vertical
Uplink Frequency (Ku-Band):	13.75 to 14.50 GHz
Downlink Frequency (Ku-Band):	10.95 to 11.20 GHz or 11.45 to 11.70 GHz or 12.50 to 12.75 GHz
G/T (Ku-Band) Beam Peak:	Spot 2: +0.0 up to +6.4 dB/K
SFD Range (Ku-Band):	-87.0 to -69.0 dBW/m ²



Key Parameters of IntelSAT 901 satellite		
Total Transponders	C-Band:	up to 72 (in equiv. 36 MHz units)
	Ku-Band:	up to 22 (in equiv. 36 MHz units)
Polarization	C-Band:	Circular - Right Hand or Left Hand
	Ku-Band:	Linear - Horizontal or Vertical
e.i.r.p. (C-Band) (Beam Edge to Beam Peak)	Global Beam:	31.0 up to 35.9 dBW
	Hemi Beam:	36.0 up to 41.0 dBW
	Zone Beam:	36.0 up to 44.1 dBW
Uplink Frequency	C-Band:	5850 to 6425 MHz
	Ku-Band:	14.00 to 14.50 GHz
Downlink Frequency	C-Band:	3625 to 4200 MHz
	Ku-Band:	10.95 to 11.20 GHz and
		11.45 to 11.70 GHz
G/T (C-Band) (Beam Edge to Beam Peak)	Global Beam:	-11.2 up to -5.6 dB/K
	Hemi Beam:	-8.0 up to -1.6 dB/K
	Zone Beam:	-7.4 up to +5.9 dB/K
G/T (Ku-Band) (Beam Peak)	Spot 1:	up to +9.0 dB/K
	Spot 2:	up to +9.0 dB/K
SFD Range (Beam Edge)	C-Band:	-89.0 to -67.0 dBW/m ²
	Ku-Band:	-87.0 to -69.0 dBW/m ²



EQUIPMENTS

iDirect Components

This modem includes both Viterbi and Sequential Forward Error Correction (FEC).

ROUTER 3000 /5000 SERIERS

Global Telecom Service Company offers The iDirect series 3000 Satellite Router is specifically designed to address the distinct IP network communications needs of small remote branch offices. The series 3000 supplies all the hardware and software you need to meet all your essential remote broadband requirements



BUC

Model No. NJT5037 / NJT5037F for intesat 901 and 1002

Model No. TB34-BPF/NEXSPL-5750 for Arabsat Badr 4

Features:

- Small Size & Light Weight
- High Efficiency Output power (3W typical @P1dB over temperature)
- Low Power Consumption



ANTENNA

The Patriot 1.2m antenna has an excellent surface accuracy of the main parabolic reflector is complemented by the cast accuracy of the lightweight sub-reflector. The two combine to create superior system performance at Ku-Band. The single optic design meets K-2 Intelsat specifications. The pre-assembled steel back structure adds strength and stability to the system and keeps the installation process simple.



HARDWARE PRICES:

ITEM DESCRIPTION	Unit Price (USD)
IDirect 3100 Narrow Band Modem with LNB NJR 2784HH, BUC Model No NJT5037F & antenna 1.2 m	1,890 USD
IDirect 3100 Modem with LNB NJR 2784HH, BUC Model No NJT5037F & antenna 1.2 m	2,050 USD

All prices are FOB / Jebel Ali Free Zone

Bandwidth Service Charges

The following section outlines the monthly recurring costs which includes satellite services:

Subscription plan for Business & Corporate users

CONTENTION Ratio 20 : 1		
BURSTABLE BANDWIDTH		DEALER Price
Downstream	Upstream	USD / Month
1024 kbps	256 kbps	545
1024 kbps	512 kbps	775
2048 kbps	512 kbps	1,365
3072 kbps	768 kbps	1,665
4096 kbps	768 kbps	2,125

CONTENTION Ratio 10 : 1		
BURSTABLE BANDWIDTH		DEALER Price
Downstream	Upstream	USD / Month
512 kbps	128 kbps	515
512 kbps	256 kbps	675
1024 kbps	128 kbps	905
1024 kbps	256 kbps	1,025
1024 kbps	512 kbps	1,325
2048 kbps	512 kbps	2,035
3072 kbps	768 kbps	3,605
4096 kbps	768 kbps	4,535

Contention Ratio = Maximum number of users that may be sharing the service at any one time.